A Work Project presented as part of the requirements for the Award of a Master's Degree in Finance from the NOVA – School of Business and Economics.

CROSS-BORDER ACQUISITIONS: EFFECT ON SHAREHOLDER WEALTH FROM DEVELOPING MARKETS ACQUIRING FIRMS

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A Project carried out on the Master's in Finance Program, under the supervision of:

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January 3rd, 2020

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Abstract

This study examines whether acquiring firms from emerging economies are able to create value for their shareholders in cross-border acquisitions, and what drives value creation. From a sample of 91 cross-border mergers and acquisitions performed by 67 Chinese multinationals during the period 2005-Sept. 2019. On average, these initiatives created value for the bidders' shareholders, but the employment of financial advisors had a negative impact on said value creation. There is statistical evidence to support that being listed on the Hong Kong Stock Exchange, payments in stock or mix of cash and stock helped produce better results, but not for corporate governance measures.

Keywords: Cross-border acquisitions; emerging-market multinationals; value creation; financial advisory.

1. Introduction

Value creation or destruction on the acquirer side in cross-border acquisitions is a fairly established concept, especially when it concerns multinational enterprises from the United States or other developed economies. The same cannot be said regarding emerging-markets multinationals expanding abroad. There is no globally accepted definition for emerging-markets but there are features that they commonly share: great growth potential, government policies that favour liberalization and the adoption of a free-market system (Arnold and Quelch, 1998; Hoskisson, Eden, Lau, and Wright, 2000). There has been a recent surge in outward investment from countries like China or India in the last fifteen to twenty years, which has led a handful of investigators to dig into this recent phenomenon.

Extant literature has not allowed for a consensus on acquirer returns in cross-border acquisitions from developed economies, with a few studies concluding significant positive return to the acquirer, to name a few: Martynova and Renneboog (2008), suggesting that acquisitions with disparate corporate governance standards allows for the creation of synergies "which are partially related to corporate governance improvements", pointing out those enhancements related to shareholder rights; Chari, Ouimet and Tesar (2004) claiming that the acquiror company benefits from the "transfer of majority control from emerging-market targets to developed market acquirers"; Benou, Gleason and Madura (2007), from a sample of high tech companies concluded that a "high level of media attention and when the acquisition is endorsed by a top-tier investment bank" contributes to a positive and significant abnormal return. And other authors have reported significant negative returns, such are the cases of Kuipers, Miller and Patel (2009) that report a significant average loss partly because of creditor's rights in the acquirer's country; Bris and Cabolis (2008) concluded that on the five days surrounding the announcement day, acquirers register an average loss, however, they find evidence that the transfer of better corporate governance practices is valued by markets with weaker corporate governance; Datta and Puia (1995) found that high cultural distance contributed to "lower wealth effects". There could be a series of reasons as for why the results show the presented disparities, the methods used for measuring differ from article to article, the time frame, the home country of the acquiring firms, are just a few examples.

The outlook is similar for studies regarding buyers from emerging markets, with a few contradicting theories surfacing in recent years. Aybar and Ficici (2009) and Chen and Young (2010) have reported negative stock price reactions on acquirers from emerging markets. On the other hand, Bhagat, Malhotra and Zhu (2010) and Boateng, Qian and Tianle (2008) have showed significant positive market reaction for their samples of emerging markets acquisition deals.

This trend of acquisitions by firms from emerging markets has been explained by Child and Rodrigues (2005) as being motivated by a pursuit of a set of resources unavailable in the country of origin, such as new technology "to secure research and development skills", international brands, and, in the case of China, to flee from constraints regarding acquisitions of domestic firms, while benefitting from the incentives from the Chinese government on outward investments. This can be seen as an effort to catch up with their developed economies counterparts.

This project examined three different research questions. First, do cross-border acquisitions from emerging-market acquirers create value for the on the bidder side? And two narrower questions: Whether the employment of professional financial advisors contributes to value creation or destruction in M&A deals; and if the independence ratio of the board of directors and the presence of CEO duality have any impact on shareholder wealth in those same deals. To do so, the selected country to examine its outward deals from an emerging setting was China. The reasoning behind this choice is rather simple, there is an abundant number of cross-border deals, and a lot of them involve publicly listed entities. Cross-border acquisitions are becoming increasingly common, but it is still a very recent phenomenon in the developing world, this means that there is not yet a vast body of literature examining it, and China, much like other emerging economies, is still taking its first steps towards internationalization.

2. Literature Review and Hypotheses development

2.1. Cross-border acquisitions

Acquisitions represent a relevant and noteworthy approach for foreign direct investment (FDI), and are usually aligned with the same strategic considerations and gains of other FDI decisions, such as better usage of assets at the firm's disposal, to benefit from competitive

advantage, to diversify risks and stabilise earnings due to low correlation presented in market returns from different geographical areas (Ning, Kuo, Strange, and Wang, 2014).

Firms are expected to undertake FDI in the form of acquisitions if, at some point in the future, synergy effects are to be expected, and if these expectations are shared by its shareholders. Markets are considered to be efficient, or at least close to it, in a way that prices reflect all available information. It can also be assumed that there will be some sort of knowledge transfer from the acquiring firm to the target, and vice-versa. With this in mind, the share price of the acquiring firm should positively change as a reflection of an acquisition announcement, i.e. there should be value creation. However, this may not be as straightforward as it seems, and markets are not always very optimistic regarding potential synergies and may not have confidence on the firm's management capabilities to go through with a certain project efficiently (Shimizu, Hitt, Vaidyanath, and Pisano, 2004). Shimizu et al. (2004) go even further and point out that many acquisitions, both domestic and cross-border, fail to create the estimated synergies either due to more complicated integration processes than anticipated, or because of unexpected high costs in the disposal of excess labour and assets. Investors may even question whether the managers are entirely objective and unbiased in their choices based on the potential gains of the project, or whether there is overpayment in the acquisition deal because of hubris (Ning, Kuo, Strange, and Wang, 2014; Seth, Song, and Pettit, 2000). This sense of scepticism can reduce the wealth effects, potentially even leading to value destruction on either the acquirer or target, or both. Since it is common for firms from emerging markets to gain access to new technology at a later stage than developed economies, to have an inferior brand name, as well as inferior resources, both tangible and intangible, it may not be ideal to try and develop those from within as both institutional (property rights protection) and innovation environment can still be underdeveloped (Li, Li, and Wang, 2016). The solution to beat these barriers and alleviate the local institutional constraints unrelated to the firms'

capabilities is to acquire abroad (Luo, 1998). An increased level of knowledge, from different backgrounds, both personal and business-related, from different professional mindsets, that are to be attained through acquisitions, allied with the new knowledge generated from the integration and crossing of two diverse and distinct business cultures, and by leveraging its competitive advantages abroad and taking advantage of new opportunities that arise in international markets, it is fair to assume that the gains can offset the losses that arise from the possible scepticism of the investors. Hence, the first hypothesis is the following:

H1. Chinese acquiring firms create value on the bidder side through cross-border acquisitions.

This scepticism, however, can be addressed, at least partially, with the assistance of professional financial advisors, or with high corporate governance standards. The financial advisors can provide a sort of "proof" that the acquirer is trying to make the most out of the deal, that the target was selected for a reason, and that the transaction will be tended to by professionals that have performed dozens of other deals (Bi and Wang, 2018). A "good" corporate governance can show that a firm is committed to its stakeholders, limiting expropriation by controlling shareholders and protecting the interests of minority shareholders, as "underdeveloped legal institutions and financial markets in the countries make external mechanisms (e.g., legal enforcement of property rights, creditor monitoring, and hostile takeovers) less effective in disciplining the behaviour of controlling shareholders" (Chen, Li, and Shapiro, 2011; La Porta, Lopez-de-Silanes, and Shleifer, 1999; La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 2000).

2.2. Financial Advisors

When acquiring in a foreign territory, sometimes the bidder may not have the local knowledge necessary to successfully manage the deal and assess the target's assets to make

sure that there is an accurate valuation (Angwin, 2001). In order to help in this matter, firms often seek professional help in the form of financial advisors.

The main reason for the presence of financial advisors is said to be the existence of transaction costs (Benston and Smith, 1976). Servaes and Zenner (1996), state that investment banks serve as professional aid to find targets for acquisitions, and often come up with a bid lower than that of the firm itself, leading firms to "rely more heavily on investment bank advice if a particular offer is likely to entail higher transaction costs". But financial advisors can also serve as a mean to minimize cross-cultural shocks, with many reputable investment banks having a series of offices scattered throughout the world. Evidence regarding the effects on shareholder wealth of hiring financial advisors has been mixed, with some authors noting that it destroys value, and others claiming that it has no significant effect on shareholder wealth (Rau, 2000; Servaes and Zenner, 1998). Bi and Wang (2018) suggest that evidence from long-run operating performance can be explained by the employment of these outside financial advisors, and that they increase the firm's capability of finding the ideal target, thus creating better operational synergies in the future. They also add that due to extensive experience on advisory of this sort, the financial advisory firms can facilitate the interactions with the market regulators, and perform highly detailed due diligence, suggesting that it is even possible the reduction on deal completion times and bid premiums.

Considering that the Chinese economy is experiencing a shift from being export-driven to a more technologically advanced, with industrial know-how and driven by consumption (J.P. Morgan Securities, 2016), their acquisitions are mainly focused in these areas. This involves economic and political risks that financial advisors are used to witness, and consequently, know how to alleviate, or at least warn the acquiring entity on how to proceed before them. All things considered, it is fair to believe that in the case of Chinese acquiring firms, it would be beneficial to seek professional assistance, and the gains of doing so would outweigh the losses incurred

in the fees, bearing in mind that only so recently compared to other more developed or western economies, has China seen their firms' expansion go overseas. Thus, the second hypothesis is the following:

H2. Employing financial advisors will create value for the Chinese acquiring firm.

2.3. Corporate Governance and CEO Duality

How a firm is managed can have a serious impact on its valuation. La Porta et al. (2000) defined corporate governance as "a set of mechanisms through which outside investors protect themselves" and help provide them with the return they deserve on their investment. Often the interests of managers are misaligned with those of the shareholders, and this divergence, more often than not, is costly to the shareholders. Claessens, Djankov and Lang (2000), report that firms in which there is CEO duality, i.e. the Chairman of the Board is also the CEO/President of the firm, there is a higher probability to have the controlling shareholders appoint board members who will back each of their decisions. However, there is an increasing number of Chinese companies cross-listing in the Hong Kong Stock Exchange, including some state-owned enterprises, and there are higher corporate governance standards demanded to be able to trade in this specific market. One of the provisions, Code Provision A.2.1 of the Corporate Governance Code (Appendix 14 to the Hong Kong Listing Rules), which is in line with the International Corporate Governance Network's (2017) corporate governance standards, predicts that the roles of Chairman of the Board and Chief Executive Officer/President should be separated, added to the minimum of one third of the board having to be independent, can help provide legitimacy to the board of directors to supervise the private interests of those in control. Bhagat and Bolton's (2008) research has found that the percentage of independent board members can serve as a proxy for the quality of the corporate governance practiced within a company, which in itself is linked to the company's overall performance. Thus, a board is

more likely to act in the best interest of all shareholders, while reducing the risks of expropriation by controlling shareholders and senior management if there is a high percentage of independent directors in the board (Fama and Jensen, 1983). Hence, the following is hypothesised:

H3a. CEO duality will destroy value on Chinese acquiring firms.

H3b. Higher percentage of board independence will create value for Chinese acquiring firms.

3. Data and Methodology

3.1. The dataset

The announcements of cross-border acquisition deals were gathered from Thomson SDC Platinum database. The period considered was from 2005 until August 2019. The information regarding the percentage of shares acquired, payment method, industries, financial advisors and public status of both the acquirer and target were also obtained through the Thomson SDC Platinum database. Equity prices of the companies, Shanghai Composite Index and the Hang Seng Index (Hong Kong Stock Exchange index), were all obtained through the Thomson Reuters Eikon database. Information regarding firm-specific characteristics, namely board of directors' composition, assets, whether they were state-owned or not was manually compiled from a combination of Thomson Reuters Eikon and each individual firm annual report, from the year prior to the acquisition announcement.

A set of restrictions were considered to reach the final sample of 91 deals from 67 different Chinese multinational companies. The restrictions were the following: all announcements deals had to have been completed, meaning there was no possibility of the deal not going through; all firms had to be publicly listed in either the Shanghai stock exchange or the Hong Kong Stock, the reason for this choice was to facilitate the abnormal returns' analysis and reduce biases related with potential market inefficiencies, while providing a large enough

sample to proceed to the statistical analysis; all firms had to have at least 120 stock trading days prior to the acquisition deal announcement, which allowed for the calculation of the firms' betas; and the percentage of shares acquired had to be equal or higher than 50.1%. This value is used as a cut-off point, even though it is understood that changes in the controlling shareholder can happen at lower acquisition percentages. After this screening, 125 deals prevailed, that were later reduced to 91, due to lack of data availability. The final pool of deals included target companies from all over the world, with no restriction on the development of the economy. Nearly 42% of the deals considered were made in emerging economies, there were 8 high tech companies, and Hong Kong was the country where the higher amount of target companies came from, contributing with nineteen deals.

3.2. Methodology

Event study methodology is the norm in this type of research, with several papers adopting this methodology format (Aybar and Ficici, 2009; Bhagat et al., 2010; Ning et al., 2014). With this method it is possible to understand whether there is creation or destruction of shareholder wealth. To obtain the abnormal returns of the acquirer firms, the market model was used. The market model in its essence assumes that there is a linear relationship between the return of the market and a given stock. For each firm *i*, the market model gives

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \quad (1)$$

where R_{it} stands for the return of the security *i* at a given time *t.* ε_{it} is the error term for security *i* at time *t*. The coefficient α_i is the intercept for each of the acquirer *i* and β_i is the term that represents the systematic risk of each individual acquirer *i*, and was calculated using a 90-day estimation period, which ranged from $t = -120$ to $t = -30$ where $t = 0$ is the announcement day. Eq. (1) is used to predict what would the return of firm *i* be if there was no acquisition

announcement. Finally, from Eq. (1) it is possible to estimate the daily abnormal return (AR_{it}) for each of the acquisition deals with

$$AR_{it} = R_{it} - \left(\hat{\alpha}_i + \hat{\beta}_i R_{mt}\right) \tag{2}$$

where $\hat{\alpha}_i$ and $\hat{\beta}_i$ are the ordinary least squares parameters obtained from the aforementioned 90-day period.

Unlike what is suggested by the Efficient Market Hypothesis, in the real world, the markets do not adjust instantaneously when new information arises. Hence, it is fair to assume that the full effect of the acquisition announcement will not be felt in the day of the event. Following this reasoning, three different event windows were considered. The sizes chosen for the event windows were 2, 5 and 11 days, $(0, +1)$, $(-2, +2)$ and $(-5, +5)$, and they were used to assess the short-term effect on shareholder wealth related to cross-border acquisition announcements on the Shanghai and Hong Kong stock exchange. It was assumed that both these markets are fairly efficient international markets and will quickly react to new information. To calculate the returns in the event windows it is necessary to aggregate them and obtain the Cumulative Abnormal Returns (CAR), and to do so the following equation was employed:

$$CAR_i = \sum_{t=1}^{T} AR_{it} \tag{3}$$

And to fit the event windows:

$$CAR_{i-EW} = \sum_{t=T1}^{T2} AR_i \tag{4}$$

Where the event window is $(T1, T2)$.

3.3. Cross-sectional analysis

To understand whether there is value creation or destruction and answer the research question, a cross-sectional analysis was conducted to comprehend the variation in the cumulative abnormal returns using the multivariate model that follows:

$$CAR_i = \beta_0 + \beta_1(SIZE) + \beta_2(STATE) + \beta_3(HITECH) + \beta_4(BOARDSIZE) + \beta_5(DUALITY) + \beta_6(INDEPENDENCE) + \beta_7(FINADV) + \beta_8(INDUSTRY) + \beta_9(CASH) + \beta_{10}(STOCK) + \beta_{11}(MIX) + \beta_{12}(REGION) + \beta_{13}(TSTATUS) \quad (5)$$

These variables can be divided into categories. The first of which is independent control variables, which are and represent the following:

- SIZE stands for the value of the acquirer's assets in millions of Chinese Yuan Renminbi, and was obtained from the companies' individual annual reports of the year before the announcement;
- STATE is a dummy variable, that takes the value 1 if the acquirer firm is state-owned, and 0 if not. The sample included 19 state-owned firms, that amounted to 29 deals;
- HITECH is a dummy variable. It takes the value 1 if the acquirer is in the high technology industry, and 0 otherwise. There were 8 high tech firms in the study;
- INDUSTRY is a dummy variable, which takes the value 1 if the target firm is in a related industry to that of the acquirer, and 0 if not. The precise metric used was Thomson Reuters' macro-level industry classifications based on Standard Industrial Classification (SIC) codes, that was obtained from the Thomson SDC Platinum database;
- HKMARKET is a dummy variable that takes the value 1 if the acquirer is listed in the Hong Kong Stock Exchange, and 0 otherwise. There were 36 deals that involved companies listed in the HKSE.

- CASH is also a dummy variable. It takes the value 1 if the transaction was conducted entirely in cash, and 0 if not. In total, 56 transactions were completed exclusively in cash;
- STOCK is a dummy variable that takes the value 1 if the transaction was conducted entirely in stock, and 0 if not;
- MIX is a dummy variable that takes the value one if the transaction was conducted using a mix of cash, stock and other possible transaction payments, such as assets, as presented by the Thomson SDC Platinum database, where the information for CASH and STOCK, was also obtained;
- TSTATUS is a dummy variable that takes the value 1 if the target firm was publicly traded at the time of the announcement. A total of 16 deals involved publicly listed target companies.
- EMERGMKT is a dummy variable that takes the value 1 if the target company is from an emerging market, and 0 if not. A total of 38 deals were undertaken in emerging economies, which represents roughly 42% of the sample in study;

The second category is related to financial advisory and the independent variable is the following:

- FINADV is a dummy variable that takes the value 1 if the acquirer has employed any sort of professional financial advisory services to complete the deal, and 0 otherwise. This data was conveyed from the Thomson SDC Platinum database;

The third and last is related to corporate governance and the independent variables are:

- BOARDSIZE is the number of directors on bidder's board of directors, and was also obtained from the individual annual reports in the year prior to the deal announcement;
- DUALITY is a dummy variable, which takes the value 1 if the role of Chairman of the Board and Chief Executive Officer is undertaken by the same person. In this sample,

the CEO was also the Chairman of the Board in a total of 26 companies, that took part in 28 deals;

- INDEPENDENCE is the fraction, in percentage terms, of the board that is made up of independent directors;

3.4. Descriptive Statistics

In Table 1 is possible to have a more immersive hindsight into the dataset gathered. Table 1 contains a summary of the variables used in the regression, as well as the correlation matrix. A result worth pointing out is the standard deviation in the firms' size measured by the book value of their assets, which takes a large value mainly due to the existence of eight deals involving acquiring two companies whose size is significantly higher than the average. The large majority of the correlation coefficients are lower than 0.4, however, to avoid any multicollinearity related issues, the Variable Inflation Factors (VIFs) were calculated, and it was possible to conclude that there is nothing major related to serial autocorrelation in this dataset with all the VIFs coming back lower than two, and a mean value of 1.26. Since heteroskedasticity is rarely present in cross-sectional regression analysis, the test for its presence was skipped.

Table 1: Descriptive statistics and correlation matrix.

		Mean	St. Dev	1	2	3	4	5	6	7	8
1	CAR (0, +1)	1.32%	6.59%	1							
2	SIZE	1049406	3210234	-0.0456	1						
3	STATE	0.32	0.47	-0.0231	0.4161	1					
4	HITECH	0.09	0.28	0.1537	-0.0884	-0.22	1				
5	HKMARKET	0.40	0.49	0.2118	-0.184	-0.22	0.064	1			
6	INDUSTRY	0.68	0.47	-0.0886	0.196	0.361	-0.3	-0.14	1		
7	CASH	0.62	0.49	-0.0566	0.2188	0.341	-0.16	0.028	0.268	1	
8	STOCK	0.02	0.15	0.2935	-0.0498	-0.1	-0.05	0.031	-0.22	-0.19	1
9	MIX	0.04	0.21	0.2435	0.014	-0.13	0.16	0.227	-0.14	-0.24	-0.03
10	EMERGMKT	0.42	0.50	-0.0122	0.0959	-0.09	0.136	-0.04	-0.07	0.046	0.18
11	TSTATUS	0.18	0.38	-0.0717	0.1336	0.239	-0.04	-0.02	0.124	0.362	-0.07
12	BOARDSIZE	10.42	2.97	-0.0394	0.4779	0.521	-0.1	-0.19	0.202	0.266	-0.1
13	DUALITY	0.31	0.47	0.0327	-0.1942	-0.31	0.127	0.088	-0.27	-0.32	0.062

		Mean	St. Dev	1	2	3	4	5	6	7	8
14	INDEPENDENCE	0.33	0.10	0.1133	0.0308	-0.05	-0.04	0.334	0.016	-0.06	0.052
15	FINADV	0.49	0.50	-0.0375	0.2287	0.325	-0.23	0.018	0.177	0.258	0.154

		Mean	St. Dev	9	10	11	12	13	14	15
9	MIX	0.04	0.21	1						
10	EMERGMKT	0.42	0.50	0.096	1					
11	TSTATUS	0.18	0.38	-0.09	0.084	1				
12	BOARDSIZE	10.42	2.97	-0.01	0.118	0.248	1			
13	DUALITY	0.31	0.47	0.009	-0.02	-0.25	-0.33	1		
14	INDEPENDENCE	0.33	0.10	-0.09	-0.1	-0.06	-0.24	0.07	1	
15	FINADV	0.49	0.50	0.066	-0.05	0.185	0.274	-0.13	-0.1	1

Note: The variable SIZE is in millions.

4. Results and Discussion

4.1. The effects of cross-border acquisition announcements on the stock market

As previously mentioned, three different event windows were taken into consideration to perform the event study method. One other reasoning behind the utilization of event windows is that sometimes even before the deal announcement there can be a leak of insider information, and this can lead to an early reaction to the announcement by the capital markets, hence the need for a wider event window to better understand the effects the deal.

Table 2 and 3 contain the summary statistics analysis conducted. Table 2 presents the daily abnormal returns for the whole sample at study, and Table 3 the cumulative abnormal returns for the selected event windows. Note how in all the event windows in Panel A, the mean CAR is positive with more than half of the sample showing positive returns, as suggested by Hypothesis 1. A t-test was conducted on the different event windows to test whether the mean being positive was statistically significant and the two smaller windows were significant at a 5% level, whereas the 11-day window was significant at a 10% level. These findings contradict those of Aybar and Ficici (2009), that reported negative returns for similar event windows, but is in line with the findings of Bhagat et al. (2010) regarding the acquisition deals from multinational firms from emerging markets, and more specifically with Boateng et al. (2008),

and Ning et al. (2014) regarding Chinese acquiring firms. This proposes that costs that are associated with M&A deals from emerging economies are offset by the benefits adjacent to said deals, and investors welcome these events as a driver for value creation. In Table 2, it is also worth remarking the day after the announcement, where over 60% of the sample registered above-zero abnormal returns, suggesting that even though the stock market reaction to the announcement is not immediate, it was rather quick, also suggesting that the capital markets selected are fairly efficient and a good object for this study. One other reasoning behind the utilization of event windows is that sometimes even before the deal announcement there can be a leak of insider information, and this can lead to an early reaction to the announcement by the capital markets, hence the need for a wider event window to better understand the effects the deal. Table 2 suggests the veracity of this reasoning, as two days before the announcement, there is a noticeable shift in the proportion of positive market returns, jumping from values very close to 50% to over 58%, as outside investors start anticipating a potential deal and prices start rising. In Table 3, it is also possible to see the differences between deals involving target companies in developing markets or developed economies. Notice how in the developed markets in all event windows there is a higher percentage of positive market reaction entries. This difference may also be allied to the fact that investors view these deals as an opportunity for acquirer firms to obtain strategic assets, or as Martynova and Renneboog (2008) suggested, an opportunity to improve corporate governance standards. However, the statistical test applied on the difference of the means did not allow the rejection of the null hypothesis that the mean difference is equal to zero. This does not mean that the mean difference is in fact equal to zero, but it could be one of the limitations of a small sample set.

Table 2: Daily Abnormal Returns for days -5 through to +5 (Market Model, N=91).

Day	Mean (%)	Median (%)	Positive Market reaction (%)
-5	-0.13	0.08	51.65
-4	-0.29*	0.01	50.55
-3	-0.09	-0.21	47.25
-2	0.75**	0.11	57.14

Day	Mean (%)	Median (%)	Positive Market reaction (%)
-1	0.26	0.09	51.65
0	0.56	0.23	51.65
+1	0.75*	0.61	60.44
+2	-0.24	-0.26	46.15
+3	-0.16	-0.08	48.35
+4	0.28	-0.06	49.45
+5	0.30	0.11	53.85

Note: ***, **, and * mean statistical significance at 1, 5, and 10%, respectively.

Table 3: Cumulative Abnormal Returns for the selected event windows.

CAR	Mean (%)	St. Dev	Median (%)	Positive Market reaction (%)	Total transactions
Panel A Whole sample					
(-5, +5)	2.00	0.116	1.84	56.04	91
(-2, +2)	2.08	0.092	1.20	58.24	91
(0, +1)	1.32	0.066	0.81	61.54	91
Panel B Target firms in Developing Economies					
(-5, +5)	1.66	0.128	1.63	55.26	38
(-2, +2)	2.86	0.092	0.80	55.26	38
(0, +1)	1.52	0.070	0.81	60.53	38
Panel C Target firms in the Developed Economies					
(-5, +5)	2.24	0.108	1.84	56.60	53
(-2, +2)	1.53	0.094	1.20	60.38	53
(0, +1)	1.17	0.064	0.81	62.26	53

4.2. Drivers of stock market performance

In this section, the cross-sectional regression analysis is now considered. There were a series of factors considered for the building of this statistical model, with both firm-specific and deal-specific factors. Table 4 contains this analysis.

Model 1 contains solely the control variables. In the two and five-day event windows, the payment being made entirely in stock or a mix of stock and cash have a positive and significant effect on the CAR's. It is important to point out that the model in itself is statistically insignificant on the 5-day window. However, when the wider event window (11-day) is considered, the results do show a positive significant effect on the dummy variable for whether the acquirer firm is listed in the Hong Kong Stock Exchange, which suggests that international investors welcome the listing in international markets and view this as a commitment to higher

governance standards, and should benefit from more transparent information disclosure. The size of the acquirer has a positive but almost zero effect, it being state-owned or high tech, and the payments in cash all show a positive coefficient, suggesting its positive effect on the abnormal returns, but this impact is statistically insignificant at a 10% level. Even though being state-owned had a statistically insignificant impact, it bearing a positive coefficient contradicts the findings of Chen and Young (2010). The target company being located in an emerging market and the target being publicly listed had a negative but statistically insignificant effect. The negative impact reflected by the target firm being in an emerging market suggests that international investors do not view these deals favourably, but the model does not provide a strong enough evidence to support this claim. Only in this model has the target company being in the same industry had a very small negative but insignificant impact on the abnormal returns related to the acquisition announcement.

In model 2, the variable for the employment of financial advisors was added, which led to a noticeable increase in the explanatory power of the model across all event windows. However, contrary to what was expected and set out in hypothesis 2, the employment of financial advisors had a negative coefficient on all CAR event windows, but this impact is only statistically significant on the 11-day window. Nonetheless, hypothesis 2 is not supported by the model laid out. This implies that hiring financial advisors is not well perceived by investors, and they may believe that potential gains from the deal will not offset the fees incurred in hiring the professional financial advisors. Stock and mixed payments maintain its statistical significance across event windows, and the HKSE listing is also statistically significant, but only in the (-5, +5) window. The remaining variables' coefficients maintain its sign, with the exception of the same industry dummy variable, which, has previously mentioned, has now a statistically insignificant positive impact.

Model 3 adds the corporate variance related independent variables INDEPENDENCE, DUALITY and BOARDSIZE, and the financial advisory regressor is again omitted. In this case the sample is slightly smaller, as information was not available at the time of collecting. This translates into a slight drop in the explanatory power of the model compared to models 1 and 2. It is also worth noting that all three regressors show a positive but insignificant impact on the dependent variables. Consequently, hypothesis 3a can be dismissed as the model does not provide statistical evidence that CEO duality leads to value destruction on the Chinese acquirer firm. For hypothesis 3b, however, the model does show that a higher independence ratio in the board of directors has a positive impact on the CAR's and in line with Ning et al. (2014) findings, but this positive impact is not statistically significant. The same can be said about the board size of the acquiring firms, board size has a positive but statistically insignificant effect. Thus, the model does not fully support hypothesis 3b. In this model, note that the HKSE listing is still significant on the wider event window, and the payment entirely in stock maintains its statistical significance across all windows, whereas the mixed payment is now only statistically significant on the narrower event window. For the remaining regressors, it is possible to see no noticeable changes on the signs of the coefficients, as they maintain them as well as its statistical insignificance. Nonetheless, much like in model 1, for the 5-day window the model is statistically insignificant.

Finally, model 4 contains all the variables considered to conduct this study, including independent control variables, financial advisory and corporate governance. All regressors that showed statistical significance in model 3 maintained it in the same event windows, and also the FINADV regressor retained its significance from model 2 at a 5% level, in the wider event window. It is worth remarking that the model was not statistically significant for the 5-day event window with these regressors. With the exception of the 2-day window, there was an evident increase in the explanatory power of the model from model 1 that contained solely the

independent control variables, to model 4 that contained all variables but a smaller study sample. Of more interest, it is possible to see that of the firm-specific variables analysed, namely the size of the acquirer measured by book value of assets, it being state-owned, its high tech nature, its corporate governance related variables, or it being listed in the Hong Kong Stock Exchange, only the latter showed statistical significance in the tests and regressions conducted.

Table 4: Cross-sectional regressions: Cumulative Abnormal Returns of Chinese acquiring firms.

	Model 1		Model 2		Model 3		Model 4	
CAR (-5, +5)								
Intercept	-0.0208	(0.0299)	-0.0091	(0.0299)	-0.0757	(0.0798)	-0.0590	(0.0781)
SIZE	0.0000	(0.0000)	0.0000	(0.0000)	0.0000	(0.0000)	0.0000	(0.0000)
STATE	0.0281	(0.0301)	0.0389	(0.0301)	0.0242	(0.0320)	0.0348	(0.0315)
HITECH	0.0274	(0.0430)	0.0149	(0.0427)	0.0419	(0.0429)	0.0282	(0.0422)
HKMARKET	0.0594**	(0.0247)	0.0608**	(0.0243)	0.0667**	(0.0270)	0.0730***	(0.0265)
INDUSTRY	-0.0033	(0.0281)	0.0001	(0.0276)	0.0047	(0.0283)	0.0105	(0.0277)
CASH	0.0180	(0.0283)	0.0287	(0.0283)	0.0185	(0.0287)	0.0298	(0.0284)
STOCK	0.2275***	(0.0833)	0.2716***	(0.0846)	0.2363***	(0.0826)	0.2894***	(0.0837)
MIX	0.1514**	(0.0605)	0.1825***	(0.0614)	0.0786	(0.0702)	0.1037	(0.0692)
EMERGMKT	-0.0226	(0.0246)	-0.0274	(0.0243)	-0.0272	(0.0246)	-0.0341	(0.0241)
TSTATUS	-0.0294	(0.0325)	-0.0238	(0.0320)	-0.0293	(0.0325)	-0.0233	(0.0317)
BOARDSIZE					0.0024	(0.0051)	0.0033	(0.0050)
DUALITY					0.0082	(0.0275)	0.0127	(0.0269)
INDEPENDENCE					0.0620	(0.1351)	0.0152	(0.1332)
FINADV			-0.0517**	(0.0258)			-0.0588**	(0.0259)
Observations	91		91		90		90	
R-squared	0.2298		0.2672		0.2289		0.2786	
CAR (-2, +2)								
Intercept	0.0064	(0.0246)	0.0137	(0.0249)	-0.0512	(0.0643)	-0.0412	(0.0639)
SIZE	0.0000	(0.0000)	0.0000	(0.0000)	0.0000	(0.0000)	0.0000	(0.0000)
STATE	0.0093	(0.0248)	0.0160	(0.0250)	0.0118	(0.0258)	0.0182	(0.0258)
HITECH	0.0430	(0.0354)	0.0352	(0.0355)	0.0567	(0.0346)	0.0485	(0.0345)
HKMARKET	0.0104	(0.0203)	0.0112	(0.0202)	0.0113	(0.0218)	0.0151	(0.0216)
INDUSTRY	-0.0011	(0.0231)	0.0009	(0.0230)	0.0069	(0.0228)	0.0103	(0.0226)
CASH	0.0015	(0.0233)	0.0081	(0.0236)	0.0059	(0.0231)	0.0126	(0.0232)
STOCK	0.1775**	(0.0686)	0.2047***	(0.0705)	0.1836***	(0.0665)	0.2152***	(0.0685)
MIX	0.1120**	(0.0498)	0.1313**	(0.0511)	0.0536	(0.0566)	0.0685	(0.0567)
EMERGMKT	-0.0032	(0.0202)	-0.0061	(0.0202)	-0.0053	(0.0198)	-0.0094	(0.0197)
TSTATUS	-0.0191	(0.0267)	-0.0156	(0.0266)	-0.0156	(0.0262)	-0.0121	(0.0260)
BOARDSIZE					0.0002	(0.0041)	0.0008	(0.0041)
DUALITY					0.0165	(0.0222)	0.0192	(0.0220)
INDEPENDENCE					0.1175	(0.1089)	0.0896	(0.1090)
FINADV			-0.0320	(0.0215)			-0.0351	(0.0212)
Observations	91		91		90		90	
R-squared	0.1726		0.1953		0.1701		0.1994	

	Model 1		Model 2		Model 3		Model 4	
CAR (0, +1)								
Intercept	-0.0093	(0.0167)	-0.0055	(0.0170)	-0.0435	(0.0449)	-0.0383	(0.0450)
SIZE	0.0000	(0.0000)	0.0000	(0.0000)	0.0000	(0.0000)	0.0000	(0.0000)
STATE	0.0118	(0.0168)	0.0153	(0.0171)	0.0105	(0.0180)	0.0138	(0.0181)
HITECH	0.0325	(0.0240)	0.0284	(0.0243)	0.0398	(0.0241)	0.0355	(0.0243)
HKMARKET	0.0134	(0.0138)	0.0138	(0.0138)	0.0144	(0.0152)	0.0164	(0.0152)
INDUSTRY	0.0033	(0.0157)	0.0043	(0.0157)	0.0067	(0.0159)	0.0084	(0.0159)
CASH	0.0116	(0.0158)	0.0150	(0.0161)	0.0126	(0.0162)	0.0162	(0.0163)
STOCK	0.1467***	(0.0466)	0.1609***	(0.0481)	0.1500***	(0.0465)	0.1666***	(0.0482)
MIX	0.1206***	(0.0338)	0.1306***	(0.0349)	0.0883**	(0.0395)	0.0961**	(0.0399)
EMERGMKT	-0.0110	(0.0137)	-0.0125	(0.0138)	-0.0127	(0.0138)	-0.0148	(0.0139)
TSTATUS	-0.0098	(0.0182)	-0.0080	(0.0182)	-0.0095	(0.0183)	-0.0076	(0.0183)
BOARDSIZE					0.0009	(0.0029)	0.0012	(0.0029)
DUALITY					0.0033	(0.0155)	0.0047	(0.0155)
INDEPENDENCE					0.0617	(0.0761)	0.0471	(0.0767)
FINADV			-0.0167	(0.0147)			-0.0184	(0.0149)
Observations	91		91		90		90	
R-squared	0.2499		0.2620		0.2226		0.2380	

Notes: Standard errors are in parentheses; ***, **, and * mean statistical significance at 1, 5, and 10%, respectively.

5. Conclusions

In this study, the value repercussions associated with cross-border acquisitions from Chinese firms from 2005 to 2019 were analysed. The final sample included 91 deals from Chinese multinational enterprises listed on either the Shanghai or Hong Kong Stock Exchange. Of all deals, 41.76% had targets in emerging-market economies, while the remainder of the targets' home countries came from developed economies, which shows that Chinese firms acquiring abroad tend to seek more developed countries to perform acquisitions. From Table 2, it is possible to see that the average daily abnormal return is positive and equal to 0.56%, this value, however, is not statistically significant. Nevertheless, the day after the announcement registered a positive and statistically significant average abnormal return equal to 0.75%. Moreover, the cumulative abnormal returns computed surrounding the event further suggests that acquisition announcements made by Chinese firms are indeed sources of value creation.

In the study conducted, the cross-sectional results show evidence that payments either entirely in stock or a mix of stock and cash, and an acquiring firm being listed in the Hong

Kong Stock Exchange have a positive effect on the abnormal returns around the date of the announcement of the acquisition. Investors view the listing in an international stock exchange with stricter rules on information disclosure as a good thing, and Chinese acquiring firms win with this listing when acquiring abroad. On the other hand, and contrary to the expectation and what was hypothesized, the employment of professional financial advisors is associated with destruction of value. Either the advisors' ability in this sort of acquisition is still reduced, or the firms employing them have yet to figure out how to successfully use them. Other factors considered, such as corporate governance, state ownership, acquirer size, nature of technology, industry relatedness or institutional development of the target country turned out to be insignificant in the estimation of the cumulative abnormal returns.

Mergers and acquisitions where the deal is initiated by an emerging-market firm is still a moderately recent phenomenon. However, this trend seems to be catching on, with investigators suggesting that emerging-market multinationals will continue using this strategy to further close the gap between them and western economies, as it facilitates access to strategic assets, new technologies, and access to new markets (Sauvant, 2008).

Like any other study, this is not without limitations. Despite its statistical usefulness and being accepted as the norm in the "industry", event study methodology takes as a given that the financial markets response to newly available information is immediate, complete and unbiased. It is also based on the semi-strong form of the efficient market hypothesis, or in other words, prices reflect all publicly available information. It is not absurd to suggest that not all market participants fully understand the mechanics of often complex strategic moves. Thus, the conclusions should be drawn sensibly.

The second limitation of this study, and perhaps the most important one, is the sample size. There were some issues regarding the public listings of several M&A deals, where for some reason the security would not be traded in the days surrounding the acquisition

announcement, which significantly diminished the potential size of the sample. Another factor that contributed for a smaller sample was that most of the deals that fitted the restrictions imposed were often not listed in the chosen capital markets, and in order to reduce potential market irregularities those deals were scrapped. With a smaller sample, a generalisation to the universe of emerging-market acquisitions may be too big a step to take, however, it does build the foundation for future studies that may be able overcome the mentioned obstacles, and gives an insight to the growing market that is Chinese cross-border acquisitions.

Finally, even though Chinese acquisitions account for a large slice of the developing markets acquisitions, the generalisation of the results to the whole emerging-market setting, should be done with caution. Nonetheless, there are a number of other large contributors to this recent outburst of emerging-market acquisitions, like Russia, India or Brazil to name a few, that could allow for a more geographically and culturally diversified study sample.

To conclude, Chinese cross-border acquisitions, on average, create value on the bidder side, with the employment of financial advisors having a negative impact on the abnormal returns of the acquirer.

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Appendix

Table 5: Deals per industry and target nation.

Industry		Target Nation	
Agriculture & Livestock	1	Hong Kong	19
Asset Management	8	United States	11
Automobiles & Components	5	Germany	7
Banks	9	Australia	6
Brokerage	2	Japan	5
Chemicals	2	United Kingdom	5
Computers & Peripherals	2	Singapore	4
Credit Institutions	1	Italy	3
Food and Beverage	5	Canada	3
Healthcare Equipment & Supplies	1	Switzerland	2
Home Furnishings	4	Bolivia	2
Insurance	2	Brazil	2
Internet Software & Services	3	Netherlands	2
IT Consulting & Services	2	India	2
Machinery	8	Turkey	2
Metals & Mining	10	Thailand	1
Oil & Gas	1	Argentina	1
Other Energy & Power	3	Rep. Ireland	1
Other High Technology	1	Tajikistan	1
Other Industrials	6	New Zealand	1
Other Real Estate	2	Poland	1
Pharmaceuticals	1	Israel	1
Power	1	Russia	1
Professional Services	3	France	1
Publishing	1	Bermuda	1
Telecommunications Equipment	1	Belgium	1
Textiles & Apparel	2	Slovakia	1
Transportation & Infrastructure	3	Macau	1
Wireless	1	Luxembourg	1
		Portugal	1
		Spain	1